<u>IN THE CLAIMS</u>

Please amend the claims to read as follows:

<u>Listing of Claims</u>

1. (Currently Amended) A <u>transmitting apparatus that transmits a signal to a receiving</u> <u>apparatus using Multiple-Input Multiple-Output, the transmitting apparatus</u> ~~communication~~ ~~apparatus used in a communication system using MIMO,~~ comprising:

a reception section that receives information indicating the number of effective eigenvalues, said number of effective eigenvalues being <u>calculated at the receiving apparatus</u> ~~the~~ ~~number of eigenvalues greater than a predetermined threshold at a communicating party~~;

<u>a number</u> ~~Number~~ of multiplex sequences control section that determines the number of multiplex sequences based on the number of effective eigenvalues <u>and performs serial to parallel</u> <u>conversion on transmission data of one sequence into transmission data of</u> ~~, and arranges~~ ~~transmission data in~~ the number of multiplex sequences; and

a transmission section that transmits the transmission data of each sequence <u>after serial to</u> <u>parallel conversion</u> via different transmission streams by space-time coding.

2. (Currently Amended) The <u>transmitting</u> ~~communication~~ apparatus according to claim 1, wherein the number of multiplex sequences control section increases the number of multiplex sequences of the transmission data as the number of the effective eigenvalues increase.

3. (Currently Amended) The <u>transmitting</u> ~~communication~~ apparatus according to claim 1, wherein the transmission section controls a space-time coding method based on the number of effective eigenvalues.

4. (Currently Amended) A communication method performing a communication using <u>Multiple-Input Multiple-Output</u> ~~MIMO~~ between two communication apparatuses, the method comprising the steps of:

in a first communication apparatus, forming a predetermined directivity by array antennas, and transmitting a signal from each antenna to a second communication apparatus;

in the second communication apparatus, calculating an eigenvalue by performing eigenvalue calculation using a received signal, calculating the number of effective eigenvalues, said number of effective eigenvalues being the number of eigenvalues greater than a predetermined threshold, and transmitting information containing the number of effective eigenvalues to the first communication apparatus;

in the first communication apparatus, controlling the number of multiplex sequences of the transmission data based on the number of effective eigenvalues, <u>performing serial to parallel conversion of transmission data of one sequence into transmission data of the number of multiplex sequences,</u> and transmitting the transmission data of each sequence via different transmission streams by space-time coding to the second communication apparatus.